

*IMAGeL*

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Lai et al. Confirmation No.: To be assigned

Serial No.: 10/723,621 Art Unit: To be assigned

Filed: November 25, 2003 Examiner: To be assigned

For: MULTILEVEL CONVERTER  
BASED INTELLIGENT  
UNIVERSAL TRANSFORMER Attorney Docket No.: 60825-0334-US  
(formerly 9842-0334-999)

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure provisions of 37 C.F.R. §1.56, there is hereby provided certain information which the Examiner may consider material to the examination of the subject U.S. patent application. It is requested that the Examiner make this information of record if it is deemed material to the examination of the application.

1. Enclosures accompanying this Information Disclosure Statement are:
  - 1a.  A list of all patents, publications, applications, or other information submitted for consideration by the office.
  - 1b. A legible copy of:
    - Each foreign patent;
    - Each publication or that portion which caused it to be listed on the PTO-1449;
    - For each cited pending U.S. application, the application specification including the claims, and any drawing of the application, or portion of the application which caused it to be listed on the PTO-1449 including any claims directed to that portion;
    - all other information or portion which caused it to be listed on the PTO-1449.
  - 1c.  An English language copy of search report(s) from a counterpart foreign application or PCT International Search Report.
  - 1d.  Explanations of relevancy (ATTACHMENT 1(d), hereto) or English language abstracts of the non-English language publications.
2.  This Information Disclosure Statement is filed under 37 C.F.R. §1.97(b):
  - Within three months of the filing date of a national application other than a continued prosecution application under §1.53(d);
  - Within three months of the date of entry of the national stage as set forth in §1.491 in an international application;
  - Before the mailing of the first Office action on the merits;





- Before the mailing of a first Office action after the filing of a request for continued examination under §1.114.

This Information Disclosure Statement is filed under 37 C.F.R. §1.97(c) after the period specified in 37 C.F.R. §1.97(b), but before the mailing date of any of a final action under 37 C.F.R. §1.113, a notice of allowance under 37 C.F.R. §1.311 or an action that otherwise closes prosecution in the application.

*(Check either Item 3a or 3b)*

- 3a.  The Certification Statement in Item 5 below is applicable. Accordingly, no fee is required.
- 3b.  The \$180.00 fee set forth in 37 C.F.R. §1.17(p) in accordance with 37 C.F.R. §1.97(c) is:  
 enclosed  
 to be charged to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no. ).

*(Item 3b to be checked if any reference known for more than 3 months)*

4.  This Information Disclosure Statement is filed under 37 C.F.R. §1.97(d) after the period specified in 37 C.F.R. §1.97(c), but on or before the date of payment of the issue fee.

The Certification Statement in Item 5 below is applicable.

The \$180.00 fee set forth in 37 C.F.R. §1.17(p) is:

- enclosed.  
 to be charged to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no. ).

5.  Certification Statement (applicable if Item 3a or Item 4 is checked)

*(Check either Item 5a or 5b)*

- 5a.  In accordance with 37 C.F.R. §1.97(e)(1), it is certified that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement.
- 5b.  Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not **received** by any individual designated in 37 C.F.R. §1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- 5c.  Pursuant to 37 C.F.R. §1.704(d), each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart application, and the communication was not **received** by any individual designated in 37 C.F.R. §1.56(c) more than thirty days prior to the filing of this information disclosure statement.

6.  Copies of each cited U.S. patent and each U.S. patent application publication are not enclosed pursuant to the USPTO OG Notice dated 05 August 2003 waiving the requirement under 37 C.F.R. 1.98(a)(2)(i) for U.S. patent applications filed after June 30, 2003.

7.  This application is a continuation application under 37 C.F.R. §1.53(b) or (d).

(Check appropriate Items 6a, 6b and/or 6c)



- 7a.  A Petition to Withdraw from issue under 37 C.F.R. §1.313(b)(5) is concurrently filed herewith.
- 7b.  Copies of publications listed on Form PTO-1449 from prior application Serial No. , filed on , of which this application claims priority under 35 U.S.C. §120, are not being submitted pursuant to 37 C.F.R. §1.98(d).
- 7c.  Copies of the publications listed on Form PTO-1449 were not previously cited in prior application Serial No. , filed on , and are provided herewith.
8.  This is a Supplemental Information Disclosure Statement. (Check Item 7a)
- 8a.  This Supplemental Information Disclosure Statement under 37 C.F.R. §1.97(f) supplements the Information Disclosure Statement filed on . A bona fide attempt was made to comply with 37 C.F.R. §1.98, but inadvertent omissions were made. These omissions have been corrected herein. Accordingly, additional time is requested so that this Supplemental Information Disclosure Statement can be considered as if properly filed on .
9.  In accordance with 37 C.F.R. §1.98, a concise explanation of what is presently understood to be the relevance of each non-English language publication is:

(Check Item 8a, 8b, or 8c)

- 9a.  satisfied because all non-English language publications were cited on the enclosed English language copy of the PCT International Search Report or the search report from a counterpart foreign application indicating the degree of relevance found by the foreign office.
- 9b.  set forth in the application.
- 9c.  enclosed as an attachment hereto.
10.  The Commissioner is authorized to charge any additional fee required or credit any overpayment for this Information Disclosure Statement and/or Petition to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310 (order no. 060825-0335-US).
11.  No admission is made that the information cited in this Statement is, or is considered to be, material to patentability nor a representation that a search has been made (other than a search report of a foreign counterpart application or PCT International Search Report if submitted herewith). 37 C.F.R. §§1.97(g) and (h).

Respectfully submitted,

Date: March 2, 2004

  
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LIST OF REFERENCES CITED BY APPLICANT  O P T JCS MAR 02 2004 PATENT & TRADEMARK OFFICE U.S. GOVERNMENT	ATTY DOCKET NO. 060825-0334-US	APPLICATION NO 10/723,621
	APPLICANT Lai et al.	
	FILING DATE November 28, 2003	GROUP To be assigned

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
A01	6,603,672	8/5/03	Deng et al.			
A02	6,597,590	7/22/03	Ikimi et al.			
A03	6,594,162	7/15/03	Shinoda et al.			
A04	6,510,063	1/21/03	Kobayashi et al.			
A05	6,507,503	1/14/03	Norrga			
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A09	6,411,530	6/25/02	Hammond et al.			
A10	6,404,655	6/11/02	Welches			
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A12	6,310,787	10/30/01	Ito et al.			
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	A32	6,005,362	12/21/99	Enjeti et al.			
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## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	YES	NO
	A65	GB 2 294 821	08/05/96	United Kingdom					

EXAMINER	DATE CONSIDERED
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

**OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)**

A66	U.S. Patent Application Publication No. US 2003/0156437 August 21, 2003
A67	U.S. Patent Application Publication No. US 2002/0167825 November 14, 2002
A68	U.S. Patent Application Publication No. US 2001/0026460 October 4, 2001
A69	U.S. Patent Application Publication No. US 2003/0043603 March 6, 2003
A70	U.S. Patent Application Publication No. US 2001/0038541 November 8, 2001
A71	Aeloiza et al., "Next Generation Distribution Transformer: To address Power Quality for Critical Loads", Vol 2: Statistical Summary Report, May 1996
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A74	Manjrekar et al., "Hybrid Multilevel Power Conversion System: a competitive solution for high power applications", Department of Electrical and Computer Engineering, 1999
A75	Chiasson et al., "Harmonic Elimination in Multilevel Converters", ECE Dept. The University of Tennessee, pgs 1-6
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A77	Tolbert et al., "Multilevel Converters as a Utility Interface for Renewable Energy Systems"
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